DRAPER®

THE TOOL COMPANY

150 LITRE COMPRESSORS

MODEL No. DA160/400B. STOCK No. 33059.
MODEL No. DA150/400BLA. STOCK No. 52585.

• INSTRUCTIONS •

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS TOOL.

150 LITRE COMPRESSORS

■ MODEL No.DA160/400B. ■ STOCK No.33059.
■ MODEL No.DA150/400BLA. ■ STOCK No.52585.

Whilst every effort has been made to ensure accuracy of information given in this manual is correct at the time of going to print, the Draper Tools policy of continuous improvement determines the right to change specification without notice.

CONTENTS:-

	Page Nos.
Specification/Guarantee	3
Safety Warning	4
General Safety Warning for Compressors and Air Tools	4
Power Supply	5
Know Your Air Compressor	6
Installation	6-7
Operation	7
Maintenance	8
Optional Accessories	9
Trouble Shooting Guide	10

DECLARATION OF CONFORMITY

We
Draper Tools Ltd. Hursley Road, Chandlers Ford, Eastleigh, Hampshire. SO53 1YF. England.

Declare under our sole responsibility that the products:

Part Number:- DA160/400B & DA150/400BLA **Stock No.** 33059 & 52585

Description:- Compressors 150 Litres

To which this declaration relates is in conformity with the following directive(s) 89/392 EEC, 87/404 EEC & 89/336 EEC.

J. N. DRAPER
Managing Director

SPECIFICATION

Model No.	DA160/400B	DA150/400BLA
Stock No.	33059	52585
Air displacement:	14cfm (400 L/min)	14.2cfm (400 L/min)
Free air delivered (FAD):	9.9cfm (278 L/min)	9.9cfm (278 L/min)
Motor:	3HP.	3HP. belt driven
Voltage:	230V/50Hz	230V/50Hz 1 phase
Speed:	1800rpm	1,000rpm
Maximum pressure:	145psi	145psi
Number of cylinders:	2	2
Receiver capacity:	150 litres	150 litres
Weight:	105kg.	108kg.
Crankcase oil type:	APICE/SGXS 15W/40	APICE/SGXS 15W/40
Ambient working temperature:	0°C to 35°C	0°C to 35°C

Compressor built in accordance with EC Directive 87/404.

The typical sound pressure level of this tool is 80dbA. The noise level whilst working could exceed 85dbA. WEAR EAR PROTECTION.

GUARANTEE

Draper compressors have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship for a period of 12 months from the date of purchase except where tools are hired out when the guarantee period is reduced to ninety days from the date of purchase.

Should the compressor develop any fault, please return the complete tool to your nearest authorized warranty repair agent or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone: (01703) 266355.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accident, or repairs attempted or made by any personnel other than the authorized Draper warranty repair agent.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorized.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the 12 month period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited

SAFETY WARNING

WARNING:
Please read the following instructions carefully. Failure to do so could lead to serious personal injury.

IMPORTANT:
Draper Tools recommends that this compressor should not be modified or used for any application other than that for which it was designed. If you are unsure of it's relative applications do not hesitate to contact us in writing and we will advise you.

GENERAL SAFETY RULES FOR AIR COMPRESSORS AND TOOLS

1. **KNOW YOUR COMPRESSOR**
   Before operating the compressor, read and fully understand the starting, operating and stopping sections in this manual. Read all labels affixed to the compressor. Learn it's applications and limitations.

2. **SERVICING AND MAINTENANCE**
   Do not service or maintain this compressor until you have read and understood the maintenance section of this manual.

3. **CHECK DAMAGED PARTS**
   Before further use of this compressor a guard or other part that is damaged should be carefully checked to ensure that it will operate correctly and perform its intended function. Check for alignment of moving parts, breakage of parts and any other conditions that may effect its operation. A guard or other part that is damaged should be properly repaired or replaced.

4. **DISCONNECT FROM POWER SUPPLY**
   Before servicing, maintaining or replacing damaged parts ALWAYS disconnect the compressor from the power supply.

5. **EARTH**
   This compressor is equipped with an approved 3-core power cable. The green and yellow conductor in the core is the earth wire. NEVER connect the yellow and green wire to a live terminals.

6. **AVOID DANGEROUS ENVIRONMENTS**
   Do not use the compressor is damp or wet locations or expose it to rain. Keep the work area well lit. Provide adequate surrounding work space.
   *Not suitable for building sites.

7. **KEEP GUARDS IN PLACE**

8. **AVOID ACCIDENTAL STARTING**
   Make sure the power supply switch is off before connecting to the power supply.

9. **KEEP CHILDREN AWAY AND MAKE WORKSHOP CHILDPROOF**
   All visitors should be kept a safe distance from the work area. The power tools and workshop should be made childproof with padlocks, master switches or by removing starter keys.

10. **NEVER LEAVE THE COMPRESSOR RUNNING UNATTENDED**
    Turn the power supply off. Do not leave the compressor until it comes to a complete stop.

11. **DO NOT OVERLOAD THE COMPRESSOR**
    Before operating any air tool check that the free air delivery (FAD) from the air compressor is equal or greater than that of the air tool to be used. NOTE: the compressor should not start more than nine times in one hour.

12. **AIR PRESSURE**
    Always check that the air supply pressure is equal to or less than the air tool manufacturers maximum operating pressure.

13. **USE SAFETY GOGGLES/MASK**
    Wear safety goggles (which comply to a recognized standard) at all times. Normal spectacles only have impact resistant lenses, they are NOT safety glasses. Also use a face mask if a cutting operating is dusty or if spraying paint or other toxic substances.

14. **USE RECOMMENDED ACCESSORIES**
    For a complete range of recommended accessories please refer to page 9 of this manual.

POWER SUPPLY

CONNECTING YOUR COMPRESSOR TO THE POWER SUPPLY:
A separate electrical socket should be used for your machine. The circuit should not be less that a 13 amp ring main which should be protected by a 30 amp fuse or miniature circuit breaker rated at 30 amps. If an extension cable is used, use only 3-core extension leads with 3-pin sockets which will accept the machine's plug. For distances up to 100 feet use 16 gauge .064 = 2.5mm wire: for distances up to 150 feet use 14 gauge .080 = 3.0mm wire. A qualified electrician should replace or repair damaged or worn cables immediately. Before connecting the motor to the power supply, make sure the switch is in 'OFF' position and that the electric current is of the same characteristics as stamped on the motor rating plate. All cable connections should make good contact. Running on low voltage will damage the motor. See extension lead chart below.

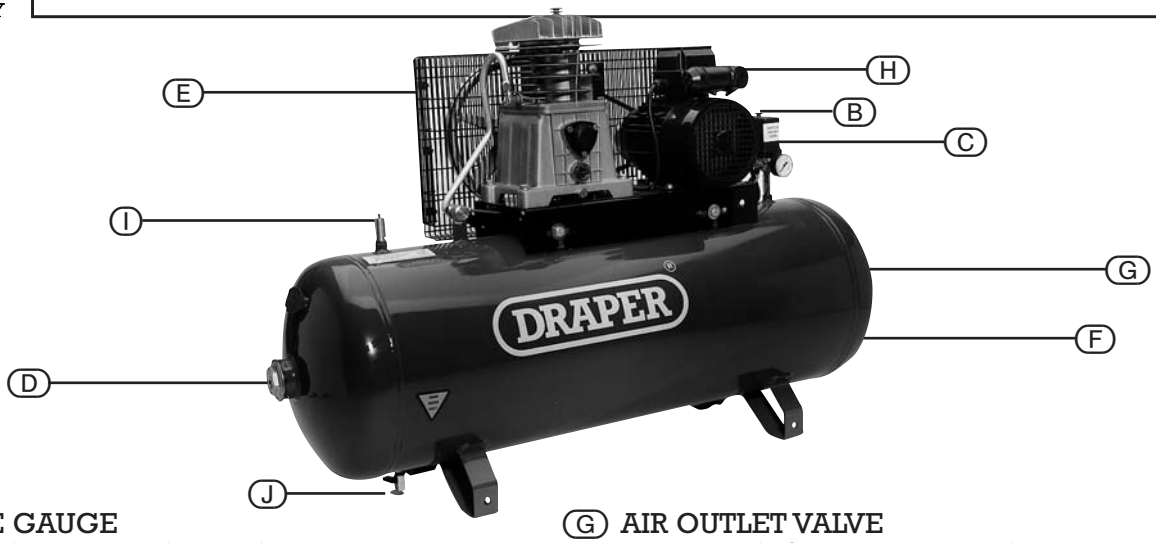
WARNING
Single phase 240 volt machines must be connected using the relevant coding and matching the colour of the flexible cable to that of the plug.

The procedure is as follows:

1. Connect green and yellow coloured core to the plug terminal marked letter 'E' earth symbol or coloured green or green and yellow.
2. Connect brown coloured core to plug terminal marked letter 'L' (live).
3. Connect blue colour core to plug terminal marked letter 'N' (neutral).

N.B. Three phase machines must be connected by a qualified electrician.

KNOW YOUR AIR COMPRESSOR



Ⓐ PRESSURE GAUGE
indicates air pressure in receiver
Ⓑ ON/OFF SWITCH (PRESSURE SWITCH)
Ⓒ MOTOR
Ⓓ RESERVOIR INSPECTION PLUG
Ⓔ PULLEY GUARD
covers, protects moving parts
Ⓕ AIR RECEIVER
stores air
Ⓖ AIR OUTLET VALVE
releases air from the reservoir
Ⓗ THERMAL OVERLOAD PROTECTION RESET SWITCH
Ⓘ OVERLOAD SAFETY RELIEF VALVE
Ⓙ RESERVOIR DRAIN VALVE

INSTALLATION

After removing the compressor from the packaging, check that it is in perfect condition.

1. Replace the plastic cap on the motor housing with the oil dipstick Ⓐ (Fig.1.)

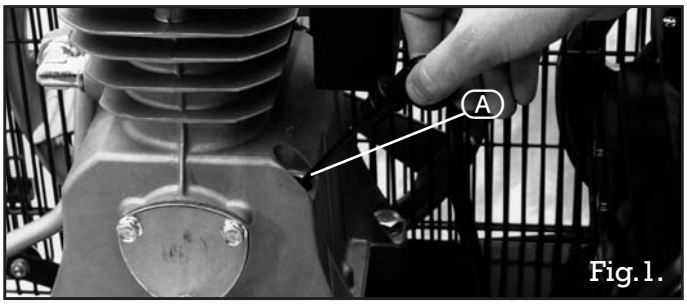
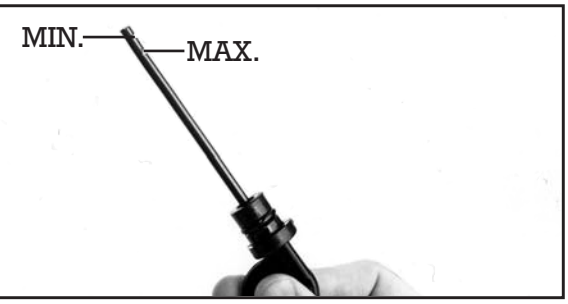


Fig.1.

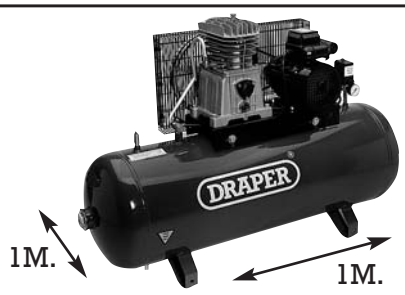
2. Check the oil level, this is indicated on the dipstick by two notches for minimum and maximum (Fig.2.)

Fig.2.



3. Ensure that there is adequate ventilation and that the safety area around the compressor is at least 1 metre. (Fig.3.)

Fig.3.



OPERATION

1. Connect the compressor to the power supply. Always turn the machine on and off by means of the appropriate switch (B) Fig.4 located on top of the pressure switch box.

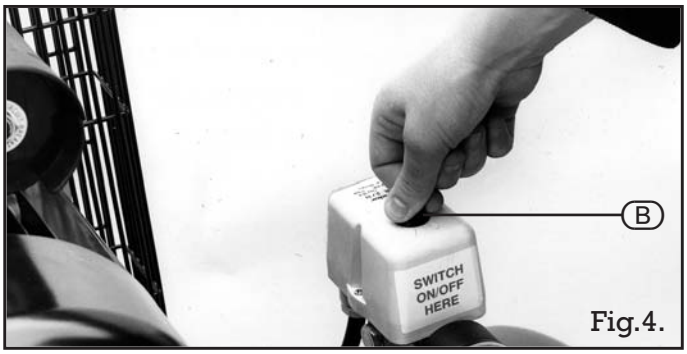


Fig.4.

2. Check that the reservoir drain valve is closed (C) Fig.5.

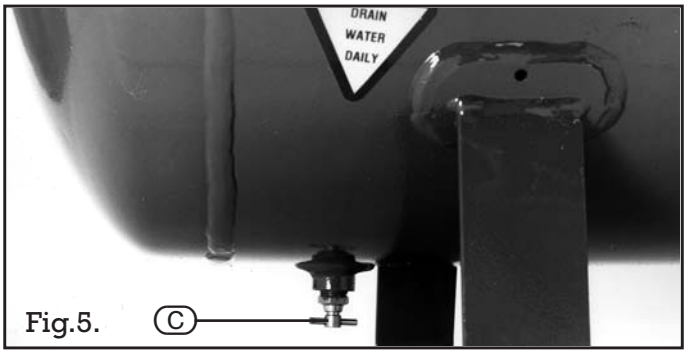


Fig.5.

3. This compressor is controlled by a pressure switch assembly (D) Fig.6 which automatically cuts off the power supply to the motor when the maximum operating pressure is reached and restarts the compressor when the compressor drops below the pre-set minimum.

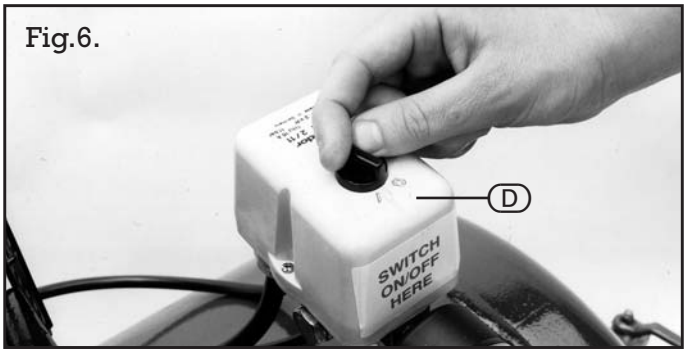


Fig.6.

4. To start the compressor turn the switch to the ON position as shown in Fig.7.
The pressure switch is pre-set at the factory and the compressor is also fitted with an overload safety relief valve in the event of the pressure switch not function correctly.

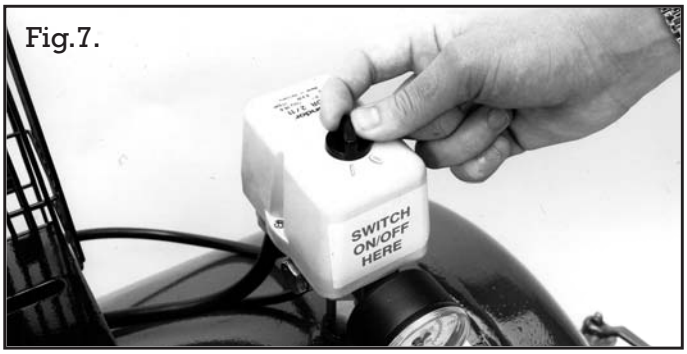


Fig.7.

5. To stop the compressor turn the pressure switch to the OFF position. Do not switch off at the power supply before switching off at the machine. See Fig.8.

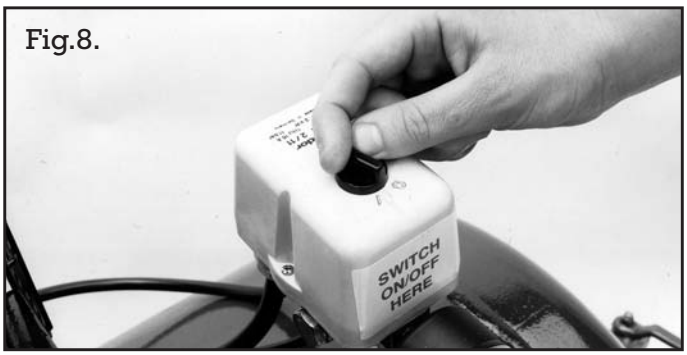


Fig.8.

MAINTENANCE

IMPORTANT:
Before performing any maintenance operations, disconnect the compressor from the power supply and release all the air from the receiver until the pressure gauge reads zero.

EVERY DAY:

A. Check the oil level and top up if required.
B. Drain the condensate from the receiver. The drain plug Ⓕ Fig.9 is situated on the underside of the receiver tank.

EVERY MONTH:

A. Clean the air suction filter using compressed air. Replace the filter every 500 hours of use.
B. Check the tension of the drive belt and adjust as necessary.

EVERY 500 HOURS:

A. Replace the oil. Remove the drain plug Ⓖ Fig.10 and drain the oil into a suitable container. Refit the drain plug and refill the crank case with new oil to the correct level.
B. Clean all the external surfaces of the pump unit and motor. Ensure that neither the motor fan cowling Ⓗ or head cooling fins Ⓘ are blocked or obstructed in any way. See Fig.11.

EVERY 2000 HOURS:
Check the condition of the valves and replace them if they are damaged or worn.

Fig.9.

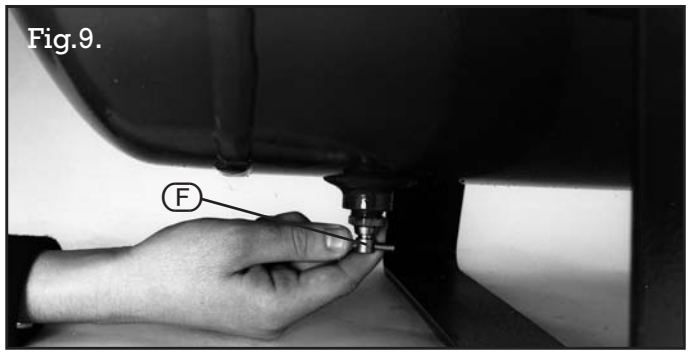
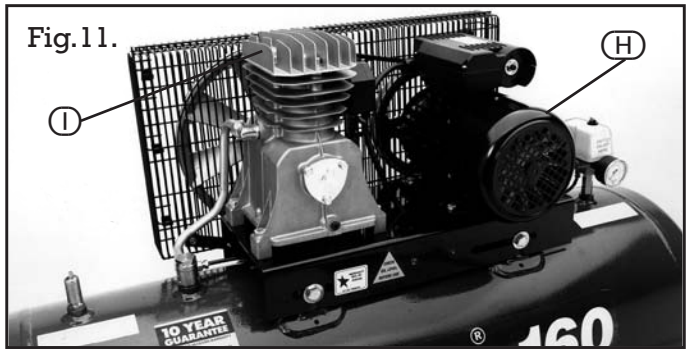


Fig.10.

Fig.11.



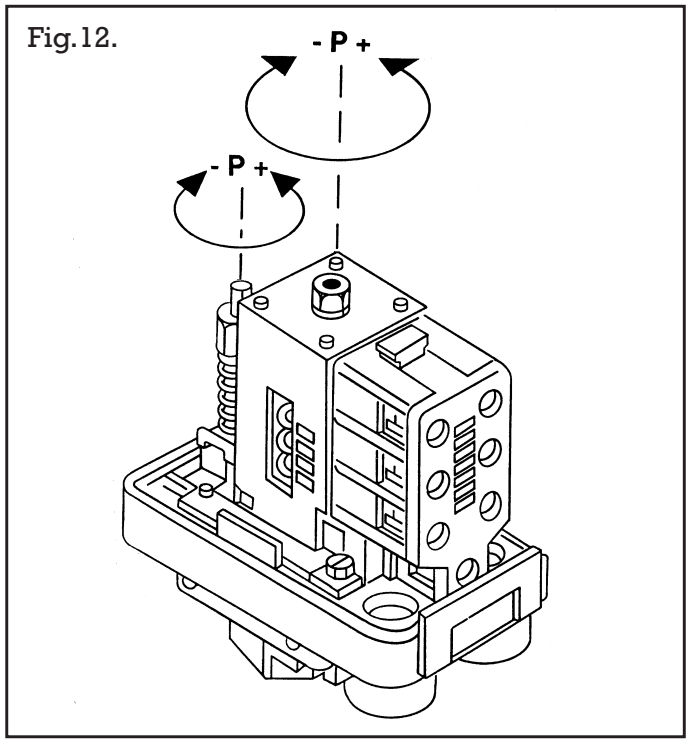
PRESSURE SWITCH SETTINGS:
The delivery pressure setting can drift over a period of time and will require periodic adjustment. Ensure that the pressure switch settings are correctly adjusted and maintained at the correct level. This will help prevent faulty occurring which can result in reduced performance and possible failure.

PRESSURE SWITCH ADJUSTMENTS:
To adjust the pressure level at which the cut-out functions, remove the switch cover and turn the pressure regulating screw clockwise to increase the level and anticlockwise to decrease the level. See Fig.12.

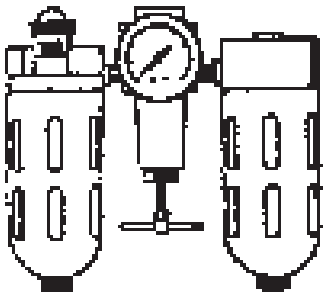
To adjust the cut-in pressure turn the cut-in pressure regulating screw clockwise to increase and anticlockwise to decrease the level.

WARNING:
DO NOT ADJUST THE CUT-OUT LEVEL ABOVE THE MAXIMUM PRESSURE AS PER THE MACHINE SPECIFICATION.

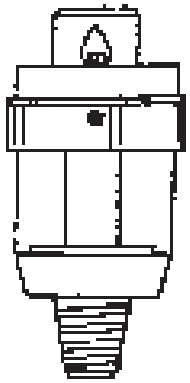
Fig.12.



OPTIONAL ACCESSORIES



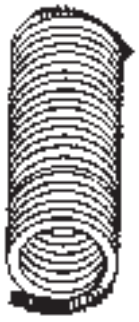
½" Combination Filter
Regulator/Lubricator
Part No.4222/3.
Stock No.51857.



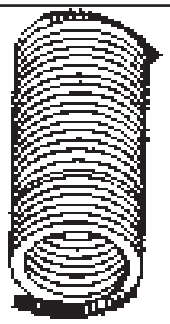
Mini Oiler
Part No.4255.
Stock No.22317.

½" Combined
Filter/Regulator
Part No.4222/3.
Stock No.51858.

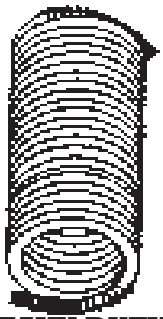
¼" Recoil Air Hose (25ft)
Part No.4225/1A.
Stock No.52662.



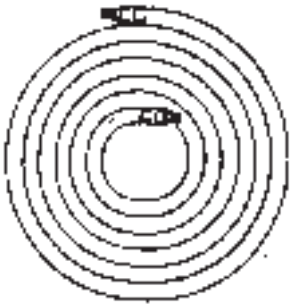
⅜" Recoil Air Hose (25ft)
Part No.4225/2A.
Stock No.52663.



HEAVY DUTY
¼" Nylon Recoil Air Hose
(25ft)
Part No.4282.
Stock No.27742.



HEAVY DUTY
⅜" Nylon Recoil Air Hose
(25ft)
Part No.4283.
Stock No.27743.

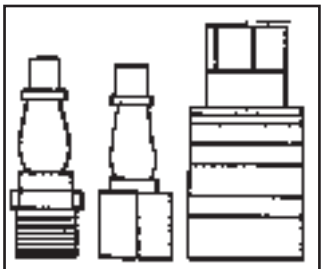


¼" Straight Air Line Hose
(50ft)
Part No.4306.
Stock No.36939.

⅜" Straight Air Line Hose
(50ft)
Part No.4308.
Stock No.36941.

5/16" Straight Air Line
Hose (50ft)
Part No.4307.
Stock No.36940.

½" Straight Air Line Hose
(50ft)
Part No.4309.
Stock No.36942.



3 pce Air Line Coupling Set
Part No.ACK1.
Stock No.27740.
See Draper Catalogue for
full range of PCL
couplings and fittings

DRAPER
THE TOOL COMPANY

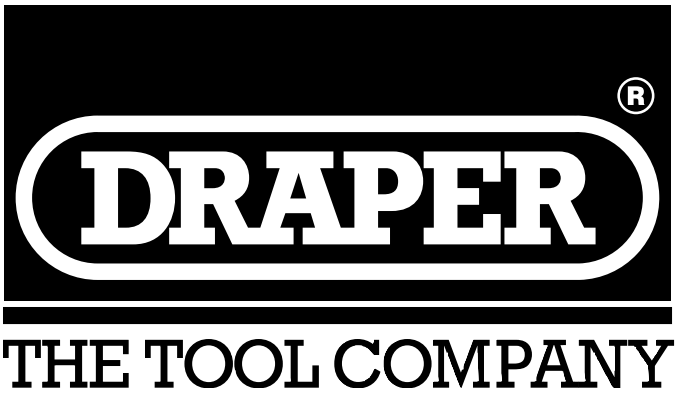
TROUBLE SHOOTING GUIDE

SYMPTOMS	POSSIBLE CAUSES
Thermal overload protection trips.	Oil level low. Wrong direction of rotation. Pressure switch failure/motor overload.
High oil consumption.	Air filter clogged. Wrong type of oil. Broken piston rings.
Oil pumping.	Air filter clogged. Wrong type of oil Oil level too high. Piston scratched, worn or scored.
Noisy operation (knocking).	Loose drive pulley, coupling or excessive wear in the motorshaft. Loose fly wheel, drive belt loose. Low oil level.
Milky oil in crankcase (water in oil).	High humidity. Change oil more frequently.
Oil in compressor air supply.	Air filter clogged, oil level too high.
Low air output.	Kinked hose, leaking connections. Air filter clogged. Piston rings broken or incorrectly seated in. Cylinder or piston scratched, worn or scored. Drive belt loose.
Excessive belt drive wear.	Belt loose - slipping, belt too tight. Pulley and flywheel misaligned.
High moisture contents in air output.	Caused by high humidity. Drain any excess moisture from receiver. Move to an area less humid.
Excessive starting and stopping.	High moisture content in receiver. Air leaks in piping/connections.
Compressor will not start.	Power cable faulty, fuse blown, circuit breaker open. Motor thermal overload protection tripped or faulty. Pressure switch faulty. Check if the receiver pressure is higher than the pressure switch cut-out pressure (motor will re-start when the receiver pressure drops below the cut-in pressure).
Air blowing from inlet.	Broken inlet valves.
Compressor runs continuously.	Defective pressure switch.
Compressor runs but does not produce air.	Check all valves are closed. Inspect all gasket in case one is broken check drive belt is not slipping or broken.
General air leaks.	These result from poor seals on some fittings.

IMPORTANT: PLEASE NOTE ALL REPAIRS/ADJUSTMENTS SHOULD BE CARRIED OUT BY A QUALIFIED PERSON.

POWER DIVISION HELP LINE:
01703 494344

NOTES



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YOUR DRAPER STOCKIST

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